

Claims:

1. A display having a display area, and a light guide
for providing light to the display area, the light guide
5 comprising:

a planar light guiding medium formed of liquid crystal
material and having a light emitting surface and one or
more side faces disposed around the light emitting
10 surface;

a plurality of light pipes, each light pipe having a
collector end for collecting light and an output end, the
output ends being arranged along the side faces so as to
15 introduce the collected light into the guiding medium;

wherein the output ends of the light pipes are distributed
along the or each side face.

20 2. A display as claimed in Claim 1, wherein the
collector ends of the light pipes are distributed over a
light collecting area and wherein the position of the
collector ends on the light collecting area is scrambled
relative to the position of the corresponding output ends
25 on the side faces of the light guiding medium.

3. A display as claimed in Claim 2, wherein the display
is secured in a casing, and the collector ends are
distributed over at least a portion of the external
30 surface of the casing.

4. A display as claimed in claim 1, wherein the light guiding medium has a planar back surface, and wherein a reflecting layer is provided on the back surface of the light guiding medium.

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5. A display as claimed in claim 1, wherein:

means are provided for applying an electrical signal to the guiding medium in one or more localised areas; and,

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the guiding medium is responsive to the electrical signal such that the optical properties of the optical medium are changed in each localised area where the electrical signal is applied, with the result that

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in the localised areas where the electrical signal is applied, light travelling along the guiding medium exits the guiding medium through the light emitting surface, and where the electrical signal is not applied, light within the light guiding medium is channelled therealong.

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6. A display as claimed in Claim 5, wherein a scattering layer is provided between the light emitting surface and the light guiding medium.

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7. A display as claimed in Claim 5, wherein a quarter wave plate is provide at the output of each light pipe.

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8. A display as claimed in claim 1, wherein the collector ends of at least some of the light pipes are secured together in a bunch having a collector face, and

means are provided for temporarily securing the bunch in an orientation relative to the display area.

9. A display as claimed in claim 1, wherein the light
5 pipes are formed from optic fibres.

10. A display comprising a light guide and a plurality of
electrodes for addressing localised areas of the liquid
crystal light guide, wherein:

10 the light guide comprises a planar light guiding medium
formed of liquid crystal material having a light emitting
surface and one or more side faces disposed around the
light emitting surface, a plurality of light pipes, each
15 light pipe having a collector end for collecting light and
an output end, the output ends being arranged along the
side faces so as to introduce the collected light into the
guiding medium, wherein the output ends of the light pipes
are distributed along the or each side face;

20 the plurality of electrodes are adapted to apply a
switching electric field across the guiding medium at said
localised areas such that the optical properties of the
optical medium are changed where the switching electric
25 field is applied such as to cause light travelling along
the guiding medium to exit the guiding medium through the
light emitting surface, whereas if the switching field
is not applied, light within the light guiding medium is
channelled therealong.

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11. An electronic device comprising:

a casing, a display with a display area secured relative to the casing, and a light guide for providing light to the display area, the light guide having:

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a planar light guiding medium comprising a liquid crystal material and having a light emitting surface and one or more side faces disposed around the light emitting surface;

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a plurality of light pipes, each light pipe having a collector end for collecting light and an output end, the output ends being arranged along the side faces so as to introduce the collected light into the guiding medium;

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wherein the output ends of the light pipes are distributed evenly along the or each side face.

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12. A light guide for providing light to a display area, comprising:

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a planar light guiding medium being of a liquid crystal material and having a light emitting surface and one or more side faces disposed around the light emitting surface;

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a plurality of light pipes, each light pipe having a collector end for collecting light and an output end, the output ends being arranged along the side faces so as to introduce the collected light into the guiding medium;

wherein the output ends of the light pipes are distributed evenly along the or each side face.

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